Analyzing Skills and Qualifications in Labor Markets
Questions 1.3 and 2.1

This background discussion is intended to help frame state discussion on what they are doing in analyzing skills and qualifications in labor markets. It is intended to provide a basis for comparing and contrasting current state efforts.

Getting Clear on Objectives and Expected Results

States undertake projects to analyze skills and qualifications in labor markets for a variety of reasons. Problems can arise when public and private stakeholders have not agreed on the major objectives and have different expectations on the results of the project. Skills analysis projects run the risk of quickly raising expectations that cannot be met. Project objectives could be:

- Raise public awareness on need for increased participation in postsecondary education
- Determine mismatch between general skill or literacy requirements of employers and the skills/literacy levels of workers
- Identify major skill gaps in key industries and occupations
- Improve alignment and articulation of education and training programs
- Develop/revise curriculum and assessment/credentialing systems
- Determine employer hiring standards and screening/selection systems

States can then use these objectives to make decisions on:

- Scope of analysis
- Level of analysis
- Content areas
- Analysis framework
- Aggregating results

Scope of Analysis

Depending on their objectives, states may make different choices on the scope of analysis. Three critical choices are:

- Geographic areas—statewide versus economic/labor market areas, service delivery areas, counties, sub-county areas. Some states are now attempting to define economic regions for connecting economic development and workforce development efforts.
- Economic sectors/industries—defining specific industry areas that have been defined in economic development and workforce development strategic plans.
- Career clusters/occupations—career clusters or occupations within or across economic sectors/industries chosen by importance to industry, demand, and/or earnings and general education/training level.

Level of Analysis

Depending on objectives and scope, states may choose a wide variety of levels of analysis. This choice is the major driver of time and costs. Some example levels are:

- Education/Training Level—the general education degree requirements or vocational preparation levels

- Content Area—the general knowledge and skill content areas such as math, teamwork, electronics, safety, customer service)
- Content Standards---detailed content listings or content statements within each content area (e.g., Math-Arithmetic—Add/subtract whole numbers, decimals, and fractions)
- Performance Standards---how well someone must perform to meet skill requirements. Industry skill standards usually involve both content and performance standards.

Content Areas

If states are moving below general education/training levels, the most important decision is the type and range of content areas to be addressed. There are three general types of content area:

- Academic—academic subject areas or literacy areas (e.g., reading, math)
- Occupational/Technical—work tasks and underlying technical knowledge and skills for career/occupational clusters or occupations.
- Workplace—more generalized workplace skills (e.g., SCANS skills) such as leadership and teamwork, problem-solving, and conflict resolution).

Method of Analysis

States can choose between wide varieties of methods of analysis. Two primary methods are:

- Primary data collection such as expert panels, focus groups, surveys, and direct job analysis; and
- Secondary data analysis, for example ONet

Analysis Framework

States face a basic "make or buy" choice in choosing their analysis framework. Framework refers to the basic architecture for defining content areas and content standards. States can choose to use:

- Customized Project Frameworks—frameworks designed for a particular objective that may or may not be used for implementing statewide
- Sub-state Frameworks—some service delivery areas may define their own frameworks for regional/local articulation and alignment.
- State Frameworks-frameworks that have already been defined through state academic standards, literacy standards, and industry skill standards.
- National Frameworks—frameworks developed by national public and private organizations (ONET, WorkKeys, NOCTI, NAEP) including industry skill standards organizations (NIMS, ASE, NRF)

Aggregating Results

States can take different approaches in how they choose to aggregate and present results, especially on industry skill requirements. One basic choice is:

- Seeking Common Skill Requirements—focusing attention on common skill requirements and similarities across the entire targeted market.
- Defining Segment Differences—focusing attention on common skill requirements and major differences between key segments within a targeted market (e.g., advanced manufacturers versus others)